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September 16, 2013

Kim Ballinger
U.S. Department of Energy
Richland Operations Office
P.O. Box 550, A7-75
Richland, WA 99352
Via Email to: 300AreaPP@rl.gov

Re: Hanford Challenge Comments on the Proposed Plan and Remedial Investigation/Feasibility Study for the 300-FF-1, 300-FF-2, and 300-FF-5 Operable Units.

Dear Ms. Ballinger,

Hanford Challenge is an independent 501(c)3 organization based in Seattle, WA which exists to help create a future for Hanford that secures human health and safety, advances accountability, and promotes a sustainable environmental legacy. Hanford Challenge collaborates with NW stakeholders, including the Hanford workforce, Tribes, Hanford Advisory Board members, community organizations, and concerned citizens to advocate for safe and protective cleanup remedies at the Hanford Nuclear Site.

Hanford Challenge maintains a membership base of around 1,600 people and an extended network of 179,798 people who receive our regular updates about Hanford cleanup. Many of Hanford Challenge's members live, work, and/or recreate on and around the Columbia River. Others work at Hanford and/or have a strong interest in assuring the protection of Columbia River and the groundwater that feeds it. Hanford Challenge advocates for worker health and safety to ensure that those on the front lines of environmental remediation at Hanford are adequately protected.

Hanford Challenge appreciates the opportunity to review and provide comments on the proposed plan for the 300-FF-1, 300-FF-2, and 300-FF-5 Operable Units (300-Area) at the Hanford Nuclear Site.

Hanford Challenge supports a cleanup plan that actually removes uranium and other contaminants, prevents further groundwater contamination, and protects future generations from ongoing pollution. In short, Hanford Challenge believes the current Preferred Alternative (3a) is not sufficiently protective and is inconsistent with anticipated future land and groundwater use. The current Preferred Alternative neither furthers the cleanup of the 300-Area to the maximum extent possible nor proposes a permanent solution in a cost effective manner.

The current plan proposes abandoning much of the residual radioactive and toxic pollution in the 300-Area. The preference to remove, treat and dispose of waste (RTD) only down to 15-feet of soil and then rely on "enhanced attenuation" and "natural attenuation," along with experimental technology, to attempt to immobilize uranium in the ground is wholly insufficient. There must be a backup plan in case the experimental technology is not effective. Furthermore, the current

proposed approach (polyphosphate treatment) does not remove the potential for future remobilization or migration due to a change climate or river levels.

The current proposed plan for 300-Area cleanup also fails to answer some important questions about the cleanup of the area.

Because uranium sequestration is untested- will it work? How will we know? Current criticism of this approach is that it will allow a large plume of uranium contamination to continue to reside in the vadose zone, continuing to dissolve and enter the groundwater. How will the Agencies assess whether uranium has been stabilized and the spread of contamination controlled?

What is the backup plan? Hanford Challenge is also concerned that if the chosen technology for sequestration proves ineffective, that DOE plans to resort to natural attenuation, rather than active remediation. Given the recognition that natural attenuation has already been proven as ineffective, a more robust backup strategy is necessary. If uranium sequestration doesn't work, what is the plan to prevent more uranium from getting into the groundwater or the river? Without a backup plan in place, there is no guarantee the 300 area will ever be clean or safe.

Why not actually remove, treatment and dispose of all contaminants? RTD is often the most effective way to clean up contamination. Several contaminants, including tritium, Trichloroethylene (TCE), and cis-1,2-dichloroethene, are being managed using monitored natural attenuation (essentially, doing nothing). Why was this choice made? Are there other options that would clean these contaminants up faster and more effectively? MNA would not achieve the cleanup goals in a timely, safe, or effective manner.

The models are insufficient – How will we know that the sequestration approach is effective? Much of the Proposed Plan is based on complicated modeling, which in turn is based on characterization. Hanford Challenge is not convinced that there has been enough vadose zone (nor groundwater flux) data collected to produce a model that may be relied on to predict the entire location of the uranium plume(s) or the effectiveness of this sequestration approach.

Where is the environmental justice analysis for Preferred Alternative (3a)? The Preferred Alternative (3a) lacks discussion of how it results in *minimal(if any) impacts to environmental justice.* The philosophy underlying the cleanup of Hanford should be guided explicitly by the goal of allowing Native Peoples to safely live the lifestyle to which they are entitled and prevent Native Populations from suffering disproportionate impacts. The analysis of the preferred alternative should also incorporate non-quantitative elements into the Preferred Alternative such as the spiritual or cultural value of a site.

Conclusion

Hanford Challenge would like to see a better analysis of the uranium plume to ensure the plan is based on sufficient understanding of uranium soil concentrations, the plume contamination distribution and the migration pathways to ensure full remediation as well as deeper removal, treatment, and disposal of waste and contaminated soil.

Hanford Challenge asserts that the entire 300-Area should be cleaned up to unrestricted use standards to ensure the environment, including the Columbia River, is adequately protected from migrating contamination. The current proposal to clean up only parts of the area to residential standards leaves the rest of the area to industrial standards which must be fenced off and guarded forever.

Hanford Challenge expects the Department of Energy to seriously consider the comments of Hanford stakeholders and make cleanup decisions that will sufficiently protect the environment and human health for current and future generations. We look forward to your response to our comments.

Sincerely,

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